Applicant: Castillo et al. Attorney's Docket No.: 017170-0006-999 (712576-999009)

Serial No.: 10/684,178 Filed : October 10, 2003

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application: Listing of Claims:

1-21. (Cancelled)

- 22. (Currently amended) A method for treating the formation, deposition, accumulation, or persistence of amyloid fibrils in a mammal, comprising the step of treating the fibrils with an effective amount of a procyanidin B2 synthesized according to claim 1, wherein the effective amount is between about 0.1 mg/kg of body weight per day and about 1000 mg/kg of body weight of the mammal per day.
- 23. (Previously presented) The method of claim 22, wherein the amyloid fibrils are Aβ amyloid fibrils.
- 24. (Previously presented) The method of claim 22, wherein the amyloid fibrils are IAPP amyloid fibrils.

25-26. (Cancelled).

- 27. (Currently amended) A method for treating an amyloid disease or a synucleinopathy in a mammal, comprising the step of administering a therapeutically effective amount of a procyanidin B2 synthesized according to claim 1 to the mammal wherein the effective amount is between about 0.1 mg/kg of body weight per day and about 1000 mg/kg of body weight per day.
- 28. (Previously presented) The method of claim 27, wherein the amyloid disease is a disease associated with the formation, deposition, accumulation, or persistence of an amyloid protein selected from the group consisting of Aβ amyloid, AA amyloid, AL amyloid, IAPP amyloid, α₂-microglobuli- n amyloid, transthyretin, prealbumin, and procalcitonin.
- 29. (Previously presented) The method of claim 28, wherein the amyloid disease is a disease associated with the formation, deposition, accumulation, or persistence of Aß amyloid.
- 30. (Previously presented) The method of claim 28, wherein the amyloid disease is a disease associated with the formation, deposition, accumulation, or persistence of IAPP amyloid.
 - 31. (Previously presented) The method of claim 27, wherein the amyloid disease is

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selected from the group of diseases consisting of Alzheimer's disease, Down's syndrome, dementia pugilistica, multiple system atrophy, inclusion body myositosis, hereditary cerebral hemorrhage with amyloidosis of the Dutch type, Nieman-Pick disease type C, cerebral .beta.amyloid angiopathy, dementia associated with cortical basal degeneration, the amyloidosis of type 2 diabetes, the amyloidosis of chronic inflammation, the amyloidosis of malignancy and Familial Mediterranean Fever, the amyloidosis of multiple myeloma and β-cell dyscrasias, the amyloidosis of the prion diseases, Creutzfeldt-Jakob disease, Gerstmann-Straussler syndrome, kuru, scrapie, the amyloidosis associated with carpal tunnel syndrome, senile cardiac amyloidosis, familial amyloidotic polyneuropathy, and the amyloidosis associated with endocrine tumors.

- 32. (Previously presented) The method of claim 31, wherein the amyloid disease is Alzheimer's disease.
 - 33-36. (Cancelled)
 - 37. (Withdrawn) The method of claim 27, wherein the mammal is a human.
 - 38. (Cancelled).
- 39. (Previously presented) The method of claim 27, wherein the amount of the procyanidin B2 administered is between about 1 mg/kg of body weight per day and about 100 mg/kg of body weight per day.
- 40. (Previously presented) The method of claim 27, wherein the amount of the procyanidin B2 administered is between about 10 mg/kg of body weight per day and about 100 mg/kg of body weight per day.
 - 41-59. (Cancelled).
- 60. (Currently amended) A pharmaceutical composition comprising: a) a procyanidin B2 synthesized according to claim 1; and b) a pharmaceutically acceptable pharmaceutically acceptable excipient, wherein the amount of procyanidin B2 in the composition is sufficient to deliver between about 1 mg/kg of body weight per day and about 1000 mg/kg of body weight per day to a mammal in a single dose.
 - 61-95. (Cancelled)